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SPRING PLANTING ISSUE

THE

AGRICULTURAL

SITUATION

FEBRUARY 1944

A Brief Summary of Economic Conditions

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WITH SPRING PLANTING almost at hand, farmers throughout the country are now making their final planting decisions for the greatest agricultural output in history. The 1944 agricultural goal calls for 380 million acres, the largest acreage ever planted in this country. Crop yield prospects for the whole country are not as favorable as at this time in 1942 or 1943, but are as good as in 1940 and 1941. In the eastern half prospects are favorable, and in the western part, where fall rains were below normal, winter snows have improved prospects, but some areas are still very dry. Farm equipment and supplies will be more available than in either of the 2 past years, with many items removed from rationing restrictions. Farm labor programs of 1943 will be carried out more intensively and on a wider scale to provide more and better skilled labor when needed. A victory garden goal of 25 percent more output from 10 percent more gardens means larger and more fully utilized gardens in 1944. And electric pig brooders contribute to better pig-crop yields by increasing the number of pigs saved by at least 10 percent.

Commodity Reviews

GRAIN STOCKS

TOTAL stocks of corn and oats on January 1, and barley on December 1, including farm, Government, and terminal market stocks, amounted to 72.6 million tons. A year ago stocks of these three leading feed grains amounted to 85.9 million tons; the 5-year average (1938-42) for January 1 is 72.1 million tons. This year's total is distributed as follows: Corn—2,008 million bushels as compared with 2,316 million bushels a year earlier; oats—725 million bushels as compared with 891 million bushels last year; and barley on December 1—200 million bushels as compared with 282 million bushels on December 1, 1942.

Disappearance of the 1943-44 supply of feed grains, including grain sorghums, in October-December totaled 48 million tons compared with 45 million tons in the same period of 1942.

Approximately 285 million bushels of wheat were consumed as feed during the last half of 1943. Indications are that about 185 million bushels will be available between January and June of this year, the total quantity depending partly on imports.

While exact data on the disappearance of high-protein feeds are not available, it apparently was slightly larger in the last quarter of 1943 than a year earlier. Total supplies for the 1943-44 marketing year are estimated to be 11.4 million tons, which, although slightly larger than the supply a year ago, will not allow for as large consumption per animal unit.

Except in the drought areas of the Eastern and South Central States, hay supplies are believed sufficient. Comparatively large shipments of hay have been sent into eastern areas, but some feeders, particularly in the east, have nevertheless found heavier grain feeding necessary this winter.

Livestock numbers are likely to be reduced to some extent during the bal-

ance of the current feeding year. But with a record number on farms January 1, the total number to be fed this season probably will exceed the number fed in 1942-43. With a slightly smaller total supply of feed concentrates available for the season as a whole, the carry-over at the end of the season for each feed is likely to be substantially lower than at the beginning. The quantity of concentrates fed per animal unit also may be reduced from the comparatively high rate of feeding in 1942-43.

LIVESTOCK

TOTAL meat output in 1944 is now estimated at 25 billion pounds dressed weight, 8 percent more than the preliminary production estimate of 23.2 billion pounds for 1943. Larger pork supplies in prospect primarily account for the increase. A large proportion of record size 1943 pig crops—which totaled almost 122 million head—will be marketed for slaughter in 1944. In addition, a reduction in breeding sows is in prospect. Cattle slaughter will probably be higher than the estimated 17 million head slaughtered in 1943. However, a lowered slaughter of lamb and mutton is anticipated.

Present estimated meat production of last year represents an increase of nearly 2 billion pounds over the total produced in 1942. This increase also was due mostly to a larger hog slaughter; beef production was moderately lower in 1943 than in 1942.

About as much meat as last year is expected to be available to civilians this year. And further, if meat reserves, set up for contingencies, are allocated to civilians, there would be more meat per capita than is accounted for in present estimates.

Federally inspected hog slaughter in 1943 was 18 percent greater than in 1942. Market congestion was caused by large hog receipts at the end of the

year. Imposition of short-time embargoes on shipments of hogs to terminal markets, plus heavy hog receipts which taxed slaughtering capacity, caused farmers to keep many butcher hogs on farms longer than usual.

Cattle and calf slaughter in December decreased 10 percent from November but was 19 percent greater than in December 1942. Federally inspected cattle slaughter during 1943 was 5 percent under that of 1942, and calf slaughter under Federal inspection in 1943 was 10 percent less than in 1942.

With the exception of prices for cows, which first declined and then rose sharply, prices of all slaughter cattle at Chicago showed little change from early November to mid-January.

Sheep and lamb slaughter under Federal inspection in 1943 was 8 percent higher than 1942. Chicago lamb prices on January 15, 1944, were about 1 dollar above early December.

DAIRY PRODUCTS

TOTAL 1943 milk production is now estimated at 118.2 billion pounds, the second highest on record and only slightly under the record production of 119.2 billion pounds in 1942. The number of milk cows on farms in 1943 was greater than in 1942, but milk output per cow declined, averaging 12.15 pounds on January 1, 1944, as compared with 12.79 pounds a year earlier and 11.91 pounds for the 10-year (1933-42) average.

Only 64 percent of the cows were being milked on January 1, the lowest percentage since 1925. This abnormal decline in the number of cows being milked, began in mid-summer, and reached its low point in November. The subsequent seasonal upturn in milk production, however, has been approximately normal. But the rate of December production, adjusted for normal seasonal variation, would result in an annual output of only 115 billion pounds.

Fluid milk and butterfat prices now are higher than a year ago. Dairy

farming returns have been increased also by the dairy production payment, this payment about doubling the increase in dairy returns over a year ago. There has been a certain amount of increase in the January rate of production payments over the last quarter of 1943. For fluid milk the national average payment will increase 3 cents per hundred pounds; for butterfat, it will probably increase almost 1 cent per pound. During January production payments averaged 38 cents a hundredweight for milk and 5.2 cents per pound for butterfat. Feed costs have increased materially during the year, while the quality and quantity of feed supplies declined somewhat.

In the North Atlantic States the daily average production per cow on January 1 was lower than last year and also lower than the 10-year average in nearly all states in the area. Fewer cows in production, poor quality roughage and concentrate problems of deficit feed producing areas were largely responsible. In the South Central States reduced production was also notable—3 percent below the 10-year average and 6 percent below January 1, 1942—due to unfavorable weather in December and feed shortages in states where drought conditions occurred last fall.

In other regions the usual seasonal changes took place between December 1 and January 1, except for a contra-seasonal rise in the South Atlantic area, and a decline in production of 8 percent per cow from January 1, 1943, in the West North Central region.

INCOME TAXES

AT LEAST one-third of a billion dollars was paid in Federal income taxes in 1943 by the several million farmers with incomes high enough to make them liable for the tax. Under the pay-as-you-go system these payments cover a large share of the Federal tax due on 1943 income. But a final and complete return must be filed on or before March 15, 1944,

to establish the exact tax liability for 1943. If this return shows that the payments during 1943 were not large enough, the unpaid difference must accompany the return.

Two of the major differences in this year's return deal with (1) the new Victory tax, and (2) how to make the adjustments necessary for changing over to a pay-as-you-go basis. The Victory tax is an additional income tax which is computed much like the regular income tax except that fewer deductions are permitted. The adjustment provision deals with the computing of the "forgiven" part of the tax in order to save the taxpayer the burden of paying 2 years' income tax in 1 year.

Because of these new provisions in the income tax, farmers will want to begin organizing the information about their financial affairs as soon as possible. If the blank forms have not yet been received they are usually available at banks, post offices and similar places, as well as from internal revenue collectors.

The several million farmers who will have to file returns on or before March 15 fall into four groups: (1) Those single persons whose 1943 gross incomes were \$500 or more, (2) married persons whose individual 1943 gross incomes were \$624 or more, (3) husbands and wives whose combined 1943 gross incomes were \$1,200 or more, and (4) those who paid or owed a tax on 1942 income regardless of the 1943 income.

POULTRY AND EGGS

SHARP declines in wholesale egg prices have occurred in recent weeks. In mid-January wholesale prices of most grades were at levels prevailing a year earlier, and were well below ceiling levels. Between December 16 and January 21, egg prices at Chicago dropped 4 to 7½ cents per dozen; in New York price declines were even more pronounced. Altogether, the extent of egg price de-

creases in this period is moderately larger than that experienced between January 9 and 15, 1943, when egg marketings also increased sharply.

December egg production set a record for the month, being 6 percent higher than a year ago and 73 percent above the 10-year average (1932-41).

Marketings of chickens have shown a marked decrease from the seasonal peak encountered late in 1943, and demand is greater than supply in most poultry markets. Seasonal low levels for marketings will continue from February through April.

TRUCK CROPS

PRODUCTION of winter season truck crops this year is expected to exceed all records, with 1,408,000 tons in prospect. This is 37 percent higher than 1943 and 53 percent over the 10-year (1933-42) average. Estimated acreage in these crops is 28 percent greater than last year.

Percentage increases in production of twelve crops range from 14 percent in the case of snap beans to 130 percent for green peas. The cabbage crop accounts for approximately three-fifths of the total increase in the aggregate vegetable tonnage. Only four winter vegetable crops are likely to be smaller than last year's—carrots, artichokes, eggplant, and green lima beans. The green pepper crop is expected to remain about the same.

Considered altogether, the intended acreages of Florida watermelons, spring onions, early spring cabbage, asparagus and shallots are 15 percent higher than in 1943, but decreased asparagus and shallot plantings are in prospect.

Ample market supplies of cabbage, escarole, lettuce, and spinach are indicated during the next few weeks, while moderate supplies of snap beans, beets, carrots, cauliflower, celery, and kale are in prospect. Onion marketings will continue below a year ago, and supplies of other vegetables will not be sufficient to meet the demand despite increased production.

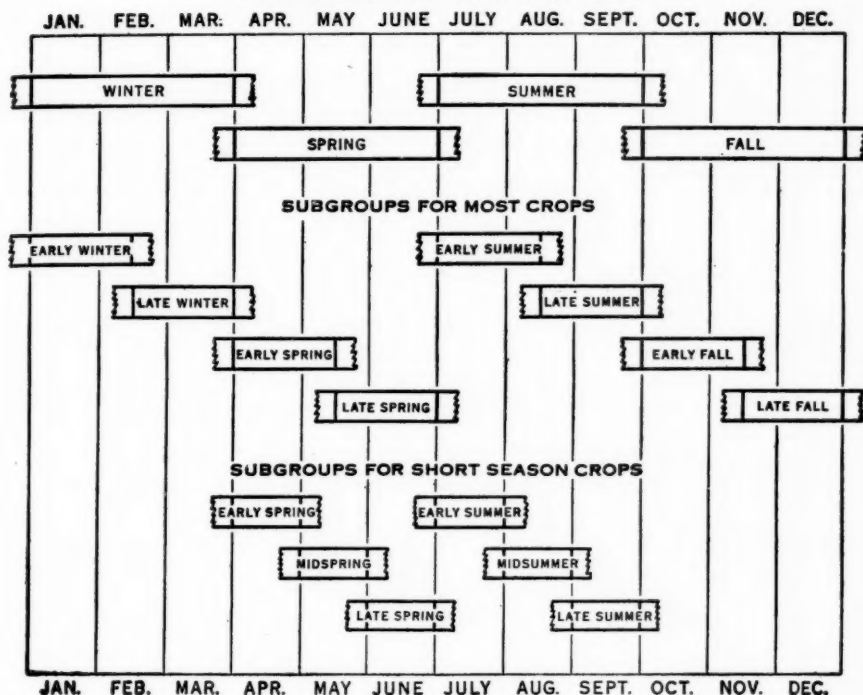
Estimated per capita civilian consumption of commercial truck crops raised for fresh market shipment in 1943 was approximately 17 percent under 1942. This was due to a 7 percent decrease in production from the

previous year and to larger allocations to noncivilian groups. Only snap beans, kale, and carrots were more plentiful than in 1942.

Civilian per capita consumption of commercially canned vegetables during

NEW SEASONAL GROUPINGS OF COMMERCIAL TRUCK CROPS FOR FRESH MARKET

(ON BASIS OF MOST ACTIVE HARVESTING PERIOD)



U. S. DEPARTMENT OF AGRICULTURE

BUREAU OF AGRICULTURAL ECONOMICS

Commercial truck crops are grown and harvested in some section of the country every month of the year. For the most part these crops are extremely perishable and must be marketed quickly to avoid waste. To be of most use in providing a basis for orderly marketing practices, production estimates have to be made at frequent intervals. In addition these estimates must indicate aggregate supplies and supplies of each crop to be available during a particular period.

The new seasonal groupings of truck crop estimates, shown in the chart, roughly correspond with the four seasons of the year. This new system has at least two important advantages over the old. The name of each group indicates the period when heaviest supplies of the crop are usually available so that it is relatively easy to interpret the reports in terms of total production of all commercial truck crops for a given period. Under the old nomenclature of early, second early, intermediate, and late, this was not always the case.

Because the new nomenclature will be more easily understood by the public than the old classification it should prove more useful in determining marketing operations, in estimating truck crop food supplies periodically, and in guiding government agencies in their allocation and purchase programs.

Index Numbers of Prices Received and Paid by Farmers

[1910-14=100]

Year and month	Prices received	Prices paid, interest and taxes	Buying power of farm products ¹
1943			
January.....	182	157	116
February.....	178	159	112
March.....	182	160	114
April.....	185	162	114
May.....	187	163	115
June.....	190	164	116
July.....	188	165	114
August.....	193	165	117
September.....	193	165	117
October.....	192	166	116
November.....	192	167	115
December.....	197	169	117
1944			
January.....	(²)	169	(³)

¹ Ratio of prices received to prices paid, interest, and taxes.

² Revised.

³ Revised series to begin in next issue.

1943-44 will be approximately one-fifth smaller than the previous marketing year, but a little larger than the 1935-39 average. While production of truck crops for processing in 1943 was only 14 percent smaller than in 1942, noncivilian requirements were very large and record quantities of truck crops were frozen and dehydrated.

TOBACCO

SO FAR this marketing season prices received by growers for nearly all types of tobacco have exceeded the high levels of 1942-43. Estimated total returns are about 550 million dollars, as compared with 510 million in 1942 and the previous record of 451 million in 1919.

Higher prices have been especially pronounced for dark and Maryland tobaccos, but substantial advances have also occurred for burley, and for some types of flue-cured and cigar tobaccos. Sales of flue-cured and most types of domestic cigar leaf have been completed, and markets for burley and dark tobaccos are now open.

Flue-cured tobacco, production of which totaled an estimated 790 million

pounds in 1943, brought an average of almost 40 cents a pound, the highest price since 1919.

Over 95 percent of the burley crop—about 364 million pounds—had been sold by January 27 at prices averaging 45.7 cents per pound, 4 cents higher than during the same period last year. Indications now are that new records will be set by the 1943 crop for season average prices, crop value, and average prices for many grades. All grades suitable for cigarette manufacturing have sold at ceiling levels, while some inferior grades were sold at prices considerably lower than the ceilings.

All dark tobaccos sold so far this season have brought much higher prices than in the corresponding period of 1942-43, due partly to the large consumption of snuff and plug chewing tobacco, improved export prospects, and the Department of Agriculture program for encouraging the use of low-grade dark tobaccos in the manufacture of nicotine sulphate and nicotine alkaloid.

Per capita consumption of leaf tobacco in this country probably reached an all-time high (about 9 pounds) in 1943. Cigarettes accounted largely for this, since consumption of cigars and smoking tobacco declined, as indicated by sales of revenue stamps. Largely as a result of increased domestic consumption of leaf, stocks of all major types of tobacco are below a year ago. Purchase of 1943 crops by manufacturers and dealers will not equal the season's disappearance of most types. Farm marketing quotas for 1944 have been announced by War Food Administration, as well as a 20 percent increase in acreage allotments for burley and flue-cured tobacco.

WHEAT

WHHEAT stocks on farms January 1 were estimated at 379 million bushels. This amount is 112 million bushels less than a year earlier, but

compares very favorably with the 10-year average (1933-42) of 227 million bushels. The disappearance of wheat from farms during the fall quarter totaled 140 million bushels, the third greatest disappearance since 1929.

The January 1 farm stocks represent 45 percent of production—5 percent less than on January 1, 1943, but 15 percent more than the average. Low farm stocks occurred mostly in South Dakota, Nebraska, Kansas, Oklahoma, and Texas, where the reduction represented 94 million bushels of the national total decline of 112 million bushels.

Farm stocks were larger than usual in relation to production this year in

the eastern half of the country and in certain parts of the Southwestern range, reflecting large inshipments of wheat. The estimate of total stocks of wheat, including those in other positions than on farms, became available late in January.

Wheat price fluctuations have been influenced by the extension of price ceilings, the flour subsidy, and Government flour purchases. Ceiling prices on wheat, formerly applicable only to soft wheat, were extended to cover all wheat on January 4, at levels reflecting 100 percent of parity to growers without taking soil conservation payments into account. Price ceilings include the usual commission charge of 1½ cents a bushel, and discounts and

Prices of Farm Products

[Estimates of average prices received by farmers at local farm markets, based on reports to the Bureau of Agricultural Economics. Average of reports covering the United States weighted according to relative importance of district and State]

	5-year average		January 1943	Decem- ber 1943	January 1944	Parity price, January 1944
	August 1909-July 1914	January 1935-De- cember 1939				
Wheat (bushel).....dollars..	0.884	0.837	1.175	1.43	1.46	1.49
Corn (bushel).....do.....	.642	.691	.880	1.11	1.13	1.08
Oats (bushel).....do.....	.399	.340	.525	.769	.775	.674
Rice (bushel).....do.....	.813	.742	¹ 1.773	1.83	1.88	1.37
Cotton (pound).....cents..	12.4	10.29	19.74	19.85	20.15	20.96
Potatoes (bushel).....dollars..	.697	.717	¹ 1.179	1.35	1.41	1.22
Hay (ton).....do.....	11.87	8.87	11.20	15.20	15.70	20.10
Soybeans (bushel).....do.....	2.96	.954	1.69	1.81	1.82	¹ 1.62
Peanuts (pound).....cents..	4.8	3.55	6.23	7.10	7.19	8.11
Apples (bushel).....dollars..	.96	.90	1.60	2.64	2.73	1.62
Oranges, on tree, per box.....do.....	⁴ 1.81	1.11	1.23	2.24	1.70	¹ 1.97
Hogs (hundredweight).....do.....	7.27	8.38	14.07	12.80	12.80	12.30
Beef cattle (hundredweight).....do.....	5.42	6.56	¹ 11.76	11.40	11.40	9.16
Veal calves (hundredweight).....do.....	6.75	7.80	¹ 13.55	12.70	12.70	11.40
Lambs (hundredweight).....do.....	5.88	7.79	¹ 13.03	12.10	12.50	9.94
Butterfat (pound) ⁵cents..	26.3	29.1	49.6	51.0	50.8	⁶ 46.1
Milk, wholesale (100 pound) ⁵dollars..	1.60	1.81	¹ 3.09	¹ 3.38	⁷ 3.35	⁶ 2.86
Chickens (pound).....cents..	11.4	14.9	22.1	24.4	23.9	19.3
Eggs (dozen).....do.....	21.5	21.7	39.0	44.9	34.6	⁶ 34.5
Wool (pound).....do.....	18.3	23.8	39.5	40.5	40.2	30.9
Tobacco (pound):						
Fire-cured-types 21-24 (pound).....do.....	⁸ 13.6	-----	16.4	27.7	24.6	14.8
Burley-type 31 (pound).....do.....	⁹ 22.2	19.1	41.5	45.5	45.3	30.9
Air-cured (dark) type 35-36 (pound).....do.....	10.9	8.6	15.6	25.7	26.9	11.9
Air-cured (dark) type 37 (pound).....do.....	¹⁰ 14.6	11.4	21.0	40.0	35.3	15.9
Cigar filler type 41-44 (pound).....do.....	-----	-----	12.8	18.0	17.4	-----
Cigar binder type 51-56.....do.....	-----	-----	16.8	33.8	28.3	-----

¹ Revised.

² Comparable base price, August 1909-July 1914.

³ Comparable price computed under sec. 3 (b) Price Control Act.

⁴ Comparable base price, August 1919-July 1929.

⁵ Does not include dairy feed payments since December 1943.

⁶ Adjusted for seasonality.

⁷ Preliminary.

⁸ Base price crop years 1919-28.

⁹ 5-season average, 1934-38.

¹⁰ 10-season average, 1919-28.

premium practices are carried on as usual. Prices of wheat in principal markets are generally at or close to ceiling levels.

January weather reports indicated that a large part of the Wheat Belt either had no snow or had only a light covering, and a general snow blanket would therefore be beneficial. The Ohio Valley had experienced alternate thaws and freezes, but relatively dry ground minimized harmful effects.

Extreme dryness, causing cracking in the ground in some areas, continued in the north central districts, particularly in Nebraska.

Precipitation in the Southwest had brought sufficient moisture for the top soil, which will insure rapid growth with the advent of warm weather. However, the subsoil moisture supply is still limited and good spring rains will be required. There was a good snow cover in the eastern Great Basin, but most of the Wheat Belt in Washington was bare. Winter grains in the South need warmth and sunshine.

FRUIT

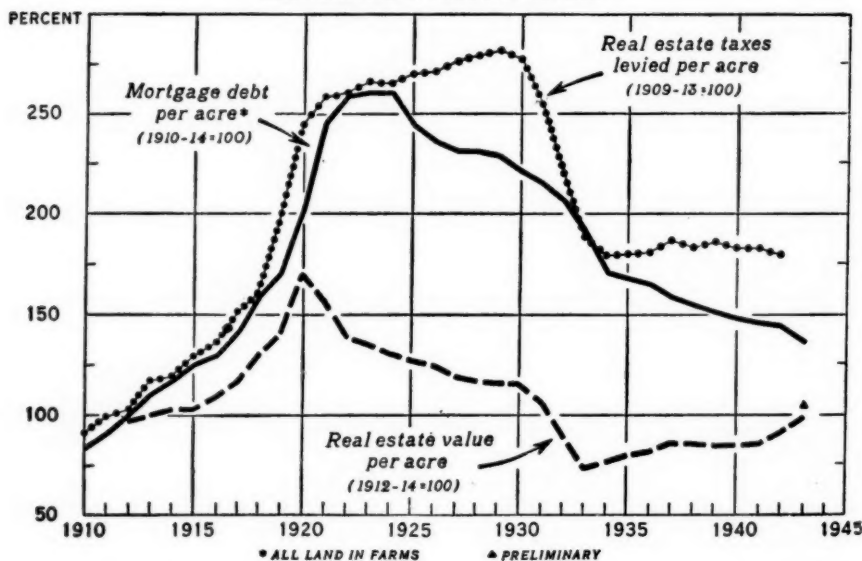
CITRUS growers are now harvesting what promises to be the largest crop on record, slightly larger than the record crop last season and about two-thirds larger than the 10-year (1932-41) average.

The 1943-44 orange and tangerine crop, as of January 1, is expected to be 97 million boxes, 9 percent larger than the crop last season. The grapefruit crop this season, estimated at 49.5 million boxes, is about as large as that of last season, and the lemon crop of 15 million boxes is slightly greater.

Citrus fruits will provide the principal volume of fresh fruits reaching consumers this winter and spring. Supplies of apples and pears from cold storage holdings will be much smaller than a year ago. On January 1, 1944, these apple stocks totaled 20,648,000 bushels, 32 percent under a year earlier, while pear holdings were 713,000 bushels, 53 percent below a year ago.

FARM MORTGAGE DEBT REAL ESTATE TAXES, AND REAL ESTATE VALUE, 1910-43

INDEX NUMBERS OF AMOUNTS PER ACRE



U. S. DEPARTMENT OF AGRICULTURE

BUREAU OF AGRICULTURAL ECONOMICS

The Why of the 1944 Agricultural Goals

FARM production in 1944 will have to meet the greatest need yet known for the food and fiber output of American farms. A large scale invasion of Europe and continued engagements in the Pacific will both require prodigious quantities of food. American civilians, with more income than they have ever had, will desire increased amounts of food. Lend-lease and foreign relief requirements will continue to grow, particularly as more areas are liberated by the Allies during the year.

Boiled down to its essentials, this need indicates tremendous wartime requirements for the products of American agriculture—greater than 1942 or 1943.

Here, then, is one of the principal factors in establishing the goals for 1944. The second is determining, through discussions with State and local leaders, what American farms can produce with the resources available to them. A third principal factor, in a sense part of the second, is determining and then improving the adequacy of equipment, supplies, credit, labor, prices, and similar essentials of increased production.

After considering these factors the 1944 goals were established at levels that with average weather and crop yields would result in a total agricultural output ever larger than the record years 1942 and 1943.

Goals Only the Beginning

Establishment of agricultural goals is, of course, not an end in itself. It is only the beginning of the production program. It points the direction and the distance the production program should go in order to more adequately meet the expected needs. Knowing this, it is easier to devise the means for arriving at the desired destination. Farmers want to know the products that are most needed in the war so

they can plan their production to meet that need.

Partly as a result of establishing agricultural goals and developing programs to assist in their achievement, food and fiber production in this country has shown a remarkable increase since World War II began in 1939. This has been especially true of the foods and fibers most needed, such as milk, eggs, oil crops, vegetables, and meats. Total food production in 1943 was a third more than the average for the pre-war years of 1935-39. With average or better weather the increase called for in the 1944 goals can be achieved.

More Acres, Low-Yield Insurance

The almost phenomenal increase in production cannot, of course, all be attributed to the planning and execution of goal programs during the last two years. For one thing agriculture has been blessed with better than average weather. Incidentally, such good weather may not continue in 1944, as discussed elsewhere in this issue, and as insurance against poorer than average weather with its adverse effect on yields, larger acreages of many crops are charted for this year. For another thing accumulated inventories of machinery, feed, and fertility set the stage for the increase. Even so, the stimulation and direction provided by the goals facilitated maximum utilization of these resources so as to increase the output of the products most needed. This has resulted in a remarkable job of shifting production to meet war needs.

Like industry, agriculture is pretty largely converted to war production, but further shifts are called for in the 1944 goals.

Emphasis this year is on direct food crops, on milk and eggs, and on legume and hay crop seeds. Brief

comments on the goal for these and other important crops follow.

Further large increases over 1943 are asked for soybeans, peanuts, dry beans, and dry peas. These oil and high-protein crops are extremely efficient sources of food nutrients so badly needed for both civilian and military uses. For the same reason increases are asked for sweetpotatoes and truck crops.

Big Demand Ups Wheat Acreage

Although wheat is primarily a food grain it is now being used extensively as livestock feed. This partly accounts for the substantial wheat increase. Wheat produces more feed units per acre in many areas than do the usual feed grains. Because wheat and flaxseed are produced in the same areas and because flax production cannot be continued on the same land year after year, more land will be planted to wheat and less to flax in 1944.

The feed crop goals have been carefully worked out to obtain maximum feed production from the available acreage. They call for further shifts from lower yielding to higher yielding feed crops, particularly from oats to corn in some Corn Belt areas. Thus the 1944 goal calls for more corn. Achievement of this increase as well as the soybean increase—a third more corn and soybean acreage than the 1937-41 average in the five principal Corn Belt States—will have to mean less small grains for feed in the areas where corn and soybeans are raised. Nationally the acreage goals for barley and sorghums are about the same as 1943 while the oats goal is less.

Available Land a Limiting Factor

A substantial increase in all feed crops is not suggested in this year's goals for two reasons. One, the limitations on available crop land will not permit the heavy livestock feeding per animal unit of 1942 and early 1943. Two, the livestock goals suggest the

raising of fewer meat animals during 1944 than during 1943.

In the livestock goal, only milk cows show an increase over 1943.

To increase milk production, as much as called for in the goals, would require about half a million more milk cows than in 1943. Even with this increased number the milk goal of 121 billion pounds would mean about 30 pounds more milk produced per cow per year than in 1943, but 100 pounds less per cow than in 1942. With average weather the milk goal can be obtained but it will be difficult to reach unless dairy farmers are assisted with their production problems. The civilian rationing of many milk products and the growing military and export demand for all milk products place them high on the goal priority list.

More Layers—More Eggs

Like milk, eggs are high in nutritive value. Accordingly the 1944 goal calls for the maintenance of a very high production. With the large number of layers now on farms and expected throughout the year, the egg goal should not be too difficult to achieve except possibly in deficit feed producing areas. With sufficient feed to meet minimum needs, assuming efficient feed utilization through rigid culling and full feeding programs, it may be possible to exceed 1943 output.

Hay Seed Acreage Up Sharply

Percentage-wise the hay crop seed goal shows one of the largest increases over 1943. The importance of adequate production of legume and grass seeds heretofore has not been adequately stressed. Growing emphasis on improved pastures and hay crops to increase milk production and the short supply of two important hay seeds, northern-grown alfalfa and ladino clover, gives new importance to hay seed output. If more ladino clover seed was available, for example, it could be used in the Northeast to help increase milk production as soon as stands could be established.

Those are some of the whys of the more important increases called for in the 1944 goals. The accompanying table provides the national figures, with comparisons, of all the commodities for which goals have been established. State and local goal figures are available from local farm leaders. The whys of the national goals apply,

for the most part, to these goals. To provide an adequate supply of food as further insurance for an early victory, every farmer should study the local goals which apply to his area before making final spring planting decisions.

SHERMAN E. JOHNSON
Bureau of Agricultural Economics

1944 Agricultural Goals, With Comparisons

Commodity	1937-41 average	1943 actual	1944 goal	1944 goal as percentage of—	
				1937-41	1943
Planted acres unless indicated otherwise					
Oil crops:	<i>Thousands</i>	<i>Thousands</i>	<i>Thousands</i>	<i>Percent</i>	<i>Percent</i>
Soybeans for beans ¹	4,121	10,820	13,654	331	126
Peanuts grown alone.....	2,361	5,202	6,158	261	118
Flaxseed.....	2,307	6,320	5,895	256	93
Fiber crops:					
Cotton.....	26,357	22,151	22,277	85	101
Flax for fiber.....		14	25		179
Broomcorn.....		272	414		152
Grain crops:					
Wheat.....	69,311	55,109	67,030	97	122
Corn.....	91,975	97,136	100,253	109	103
Oats.....	39,646	42,858	39,558	100	92
Barley.....	14,290	17,329	17,372	122	100
Sorghums (except sirup).....	17,070	17,291	16,740	98	97
Rye for grain ¹	3,700	2,777	2,408	65	87
Rice.....	1,118	1,531	1,525	136	100
Vegetable crops:					
Fresh market truck ¹	1,740	1,560	1,688	97	108
Process truck.....	1,426	2,079	2,210	155	106
Dry beans.....	1,977	2,734	3,048	154	111
Dry peas.....	280	832	895	320	108
Potatoes.....	2,913	3,430	3,519	121	103
Sweetpotatoes.....	741	898	1,056	143	118
Sugar crops:					
Sugar beets.....	914	619	951	104	154
Sugarcane ¹	264	322	333	126	103
Hay and seed crops:					
Tame hay ¹	57,197	61,016	62,838	110	103
Hay crop seeds.....	3,907	3,486	4,890	125	140
Cover crop seeds ¹	211	418	362	172	87
Tobacco crops ¹	1,612	1,462	1,756	109	120
Livestock numbers:					
Cattle and calves on farms Dec. 31.....	69,220	² 80,800	76,842	111	95
Sheep and lambs on farms Dec. 31.....	53,244	² 52,900	51,901	97	98
Sows to farrow:					
In spring.....	7,529	12,134	10,325	137	85
In fall.....	4,798	7,601	6,893	144	91
Milk cows, average per year.....	23,275	² 25,669	26,148	112	102
Chickens raised on farms.....	656,464	² 925,652	892,983	136	96
Commercial broilers raised.....	110,927	² 248,576	208,805	188	84
Turkeys raised.....	30,723	² 33,069	32,079	104	97
Livestock products:					
Milk on farms (pounds).....	107,899,000	118,235,000	121,237,000	112	103
Eggs on farms (dozens).....	3,252,000	4,499,000	4,597,000	141	102

¹ Harvested acreages.

² Includes hairy vetch, common vetch, purple vetch, Austrian winter peas, crimson clover, and common rye grass.

³ Preliminary.

Prospective Crop Yields for 1944

CROP YIELDS per acre are likely to be lower in 1944 than in either of the last two seasons. If weather conditions during 1944 are no better or worse for crops than the average for all past seasons for which we have records, crop yields may be expected to average about 19 percent above the 1923-32 or pre-drought average, but 4 percent below 1943 and 12 percent below 1942. Present prospects point to yields for 1944 nearly equal to those of 1940 and 1941 and substantially above those for earlier years.

Favorable factors which will tend to raise yields above 1943 include: a larger and possibly record supply of fertilizers, further shifts to high yielding varieties, prices high enough to justify better than usual care of crops, and increasing centralization of some crops in the best producing areas. Chief factors now in sight which will tend to reduce yields are: less favorable moisture conditions from Nebraska and the Dakotas westward, and the need to increase the acreages of some important crops in areas where yields are likely to be low. Each of these factors must be considered separately because each affects only certain crops in a limited group of States.

Largest Fertilizer Supply

A large quantity of fertilizers will be available for 1944 crops and the total tonnage is expected to be at least 5 percent, and possibly 7 or 8 percent greater, than in any past year. Wider use of fertilizers will tend to raise yields in areas where fertilizers are important, especially in the coastal States from Maine to Mississippi and to a lesser extent in other areas extending westward into Michigan, Indiana, Arkansas, and Louisiana. As a group these States will have about 135 million acres in crops this year and will use about 10 million tons of commer-

cial fertilizer, equal to an average of about 150 pounds per acre on the entire crop acreage in these States. Fertilizers are also important in some of the fruit and vegetable producing areas of California, but they are seldom used in quantity on nonirrigated land where the annual rainfall is less than 30 inches.

The distribution of the total tonnage of fertilizers in recent years has been roughly a little over one-third to corn and small grains; one-fourth to potatoes, sweetpotatoes, other vegetables and fruits; one-fifth to cotton and tobacco; one-fifth to hay crops, pastures, peanuts, soybeans, and other crops. Thus the benefits of the increased supply will be shared for nearly all eastern crops. As compared with the 1923-32 period the 50 percent increase in fertilizers used probably raises the general level of crop yields about 5 percent. The great increase in the quantity of agricultural lime used is also tending to raise yields.

Better Strains in Wider Use

The progressive substitution of new and improved varieties of crops for varieties formerly grown has been a major factor in the upward trend of yields in recent years but in many cases the benefits have been of importance only in limited areas. For example, the rapid substitution of hybrid corn for the open-pollinated varieties, universally grown a few years ago, increases the prospective 1944 production of all grain in United States by 10 percent, even though 85 percent of the acreage of hybrid corn has been in only eight States.

In the case of wheat, improvement in yields resulting from the development and use of rust-resistant varieties and from other efforts to reduce losses from rust appears to be important chiefly in States where rust has been troublesome and in years when yields

are not limited by drought. For this reason the yields of the past 3 years, averaging a bushel per acre more than in any single previous season, do not indicate what may be expected this year.

Yields of oats, flax, potatoes, cotton, sugar cane, sugar beets, alfalfa, beans, and soybeans have all shown marked local improvement following the use of improved varieties. Present prices of farm products should enable nearly all farmers to buy improved seed and thus increase yields of these crops.

High Prices Promote Better Care

Favorable prices also stimulate the adoption of better farm practices, reduce waste of crops produced, and encourage wider use of lime, fertilizers, and spray materials. Higher prices and expenses have likewise stimulated greater use of equipment and more intensive use of the most productive land. For example, higher wages have made it progressively less profitable to hire a man with a hoe and progressively more profitable to hire a man with a tractor. Many farmers who have power equipment find it profitable to rent additional land and otherwise operate larger acreages. Some pastures on good farm land are being plowed for crops while some of the poorer fields in submarginal areas are turned into pastures. This and

similar developments tend to concentrate more of the national crop acreage on the best land and will be a favorable factor in increasing yields.

Wartime acreage shifts which affect crop yields will depend on the weather and so early forecasts cannot be precise. In general, though, the efforts of Corn Belt farmers to increase the acreages of corn and soybeans will increase the percentage of the corn crop planted on good land, and to this extent will increase the national average yield of corn per acre but decrease the average yields of the oats, hay, and other crops displaced from this good land. Prices of potatoes and vegetables have recently been unusually high in relation to freight rates. This has benefited areas far from market and has tended to cause large acreage increases of these crops in high-yielding areas which ship their products long distances by rail. On the other hand, increases in peanut production, as compared with prewar, have been mostly in States where the yields have been below the national average. This tends to reduce the national average yield of peanuts per acre.

Favorable weather largely accounts for the exceptional yields of 1942 and partially accounted for the better-than-average yields of 1941 and 1943. Present crop prospects for 1944 are

Past and 1944 Prospective Crop Yields per Acre, United States Averages for All Harvested Acreage

	All Corn	All Wheat	Oats	Bar- ley	Tame Hay	Cot- ton	Soy- beans	Beans	Pota- toes	To- bacco	28 crops (per- cent of 1923-32 average) ¹
	Bu.	Bu.	Bu.	Bu.	Tons	Lb.	Bu.	Lb.	Bu.	Lb.	Pct.
1880-99.....	25.9	13.4	27.5	23.7	1.25	182	-----	-----	82.5	732	-----
1900-19.....	26.6	14.3	29.9	23.2	1.31	185	-----	-----	96	818	-----
1920-29.....	26.8	14.0	29.7	22.7	1.31	162	-----	665	111	772	100.6
1930-36.....	21.4	13.1	26.1	19.9	1.19	187	14.6	729	108	806	94.2
1937-41.....	28.9	14.6	31.6	23.3	1.39	246	18.7	917	126	941	117.7
1942.....	35.2	19.8	35.6	25.5	1.53	272	18.7	987	137	1,023	136.2
1943.....	32.5	16.5	29.8	21.9	1.43	252	18.1	884	140	960	124.0
Prospective 1944 ² ..	31.1	14.0	31.0	23.0	1.30	250	18.0	880	131.5	1,000	119.3

¹ Crops included in the average, in addition to the 10 listed in the table, are: sorghums for grain, rye, flaxseed, rice, wild hay, peanuts, sweetpotatoes, sugar beets, apples, 3 citrus fruits as a group, and 6 other fruits as a group.

² Average weather difficulties are assumed.

not as favorable as they were at this time in any of these three years. The fall and winter drought threatens 1944 prospects quite generally in the 10 Great Plains States. When weather is favorable these States harvest nearly 40 percent of the total crop acreage in the United States and fluctuations in their rainfall have been responsible for much of the variation in total crop production. In contrast to the two preceding years when crops in these States were given a good start by 20 percent more than normal rain and snow in the fall, the precipitation in the fall of 1943 was 25 percent below normal. Consequently, forecasts of wheat, oats and barley will have to be conservative until moisture conditions in these States further improve. Likewise a large part of the area west of the Rockies has been so dry during the fall and early winter that prospects there have been rapidly declining. In the East the fall has been dry but not dry enough to reduce prospects for 1944.

Weather Most Important Factor

Considering all these favorable and unfavorable factors, there seems some justification for expecting a better than average season for 1944 crops in most of the Eastern half of the country but in much of the Western half prospects seem rather uneven and less promising than the long-time average. Actual yields in 1944 will be determined primarily by the weather during the growing season. Present forecasts for crops not yet planted show only what yields may be expected if the weather during 1944 is neither more favorable nor less favorable than the average of all past seasons for which we have records.

Prospective yields for some of the more important crops follow.

Corn yields, after varying only slightly from decade to decade for many years, have recently been rising because of the increased acreage of hybrid corn. The most probable United States yield in 1944 would seem to be a little over 31 bushels per acre,

more than 5 bushels above the usual yield 10 years ago when hybrid corn was still experimental. In 1943, hybrid corn was planted on more than half the total corn acreage in the country and as it was planted most extensively in the best corn areas, it produced nearly 70 percent of the total corn crop. Further expansion of hybrid corn acreage will be less rapid but the gradual development of new hybrids suitable for different localities will no doubt help to increase corn yields for a long time.

Wheat Yields Below 1943

Wheat yields have varied chiefly with the weather. On the basis of December 1 prospects, the 1944 wheat crop was forecast at 11.2 bushels per planted acre, equivalent to about 14.3 bushels from each acre expected to be harvested. In the area extending from central Kansas into northeastern New Mexico, crop prospects were improved by the abnormally heavy December rains and snows, but from the Dakotas, Nebraska, and northwestern Kansas westward the dry fall was followed by a dry December. This gives part of the winter wheat a poor start and increases the uncertainty for spring wheat. Instead of expecting a yield of 16.6 bushels per acre for all wheat, as was forecast at this time last year, it would seem best to expect about 14 bushels per harvested acre in 1944 and allow for the more than usual acreage abandonment.

Oats and barley have suffered from the hot summers and droughts of the last 14 years, but, when similar seasons are compared, the yield of oats appears to have been rising, chiefly in some States where productive new varieties are being introduced. Winter barley has been spreading into new areas but as yet the acreage affected is relatively small. Probably 31 bushels of oats per acre, and 23 bushels of barley is as much as should be expected in 1944.

Sorghum yields will depend largely on summer rainfall in the Southwest, but new varieties are promising.

Varieties grown for grain should average 15 bushels per acre.

Potato yields per acre have been rising about a bushel per acre for the last 50 years and with large supplies of certified seed and fertilizer available, and large acreages expected in the leading commercial areas, prospects for a large yield have rarely, if ever, been better this early in the year. A yield of 131 or 132 bushels per acre would seem to represent 1944 prospects at this time although no United States average yields prior to 1940 were this high.

Fruits in the eastern half of the country appear definitely better than

at this time last year but the chances are against western grape yields as good as last year. Citrus groves appear promising and will be well fertilized and well cared for; they will probably produce as well, perhaps better, than in 1943, but freezes or hurricanes may upset forecasts as they have in the past.

Other crops show prospects about as usual and about the same as at this time last year, but expectations for all crops will change from month to month as more information becomes available

JOHN B. SHEPARD

Bureau of Agricultural Economics

Farm Equipment Available in 1944

NEW FARM equipment outlook for 1944 is much improved over 1943. Over-all raw materials authorized by the War Production Board for making general planting, tillage and harvesting equipment in 1944 is more than double the quantity authorized for 1943. The 1944 quota is about 80 percent of the production in 1940, a year in which manufacture was relatively large. Furthermore, the manufacture of repair parts in 1944 will be unrestricted.

The farm machinery program, as a whole, is in good shape. The production of new farm machinery has accelerated rapidly during the winter months and, except for a few items, is not in serious *direct* competition with the manufacture of war equipment. On the vast majority of farm items, manufacturers are expected to meet their production schedules and deliver the goods on time. The War Production Board has assigned a special force of field specialists to assist farm machinery manufacturers to obtain labor, materials and components and to assist in avoiding or breaking bottlenecks as they occur.

Under war conditions it has not been possible to make farm equipment in sufficient quantities to meet the de-

mand of all that could be sold. Over-all production schedules for 1944 were made to fit a nation building equipment necessary to fight a world war. Just as gas must be conserved by doing only necessary driving, just as food supplies must be economized—so, too, materials and components required for the production of farm equipment must be conserved by concentrating on that most needed. The quantities of raw materials allocated for making farm machinery and repair parts this year are more than *twice* as large as last year because this much more equipment is expected to be needed to meet bigger-than-ever 1944 farm goals.

To farmers who are concerned about the availability of farm equipment, "farm machinery" means thousands of items—everything from milk pails to tractors. Obtaining a supply of milk pails is not difficult. An allotment of tin plate is made and the manufacturing job is relatively simple. But when it comes to the complicated mechanisms of a tractor, the sore spots are many—bearings, forgings, engine blocks, carburetors, magnetos, transmissions, and similar parts that often are made in separate plants and later assembled in the finished tractor.

These are the very components required by army tanks, navy landing craft, airplanes, trucks, and other prime war equipment. Thus the production of tractor parts in sufficient quantity to meet all essential needs presents a difficult problem.

Compared with the rationing schedules of 1943, the improved outlook in supply of equipment for 1944 permits a reduction in the number of types of machinery to be rationed. Distribution controls are now considered necessary on only 46 types, and rationing control on only 31 types of the most essential labor-saving equipment.

Machinery rationing for 1944 continues under War Food Administration orders. The new program permits manufacturers greater latitude in distribution than was possible in 1943. Neither attachments nor repair parts are subject to rationing.

Following are representative samples of increases in farm machinery under approved schedules for the 1943-44 production year. Note that both the 1942-43 and 1943-44 authorized production is given as a percentage production of the same equipment in the base year, 1940, an exceptionally good year in farm machinery production.

1943 and 1944 Farm Equipment Production as a Percentage of 1940 Output¹

Equipment Groups	1943 percent of 1940	1944 percent of 1940
Tillage, planting, cultivating, fertilizing, and spraying equipment.....	30	79
Harvesting and haying equipment, and farm elevators.....	69	125
Tractors, wheel type.....	33	58
Wagons, farm trucks (not motor trucks), irrigation equipment, pumps, and windmills.....	40	92
Dairy, poultry, barn, and miscellaneous equipment.....	74	86
Total.....	46	87

¹ Repair parts excluded in all three years.

Meeting the wheel tractor production quota in the current year is difficult. Nevertheless, accelerated production by leading tractor makers

promises that the quota will in all probability be reached. Incidentally, the production scheduled between July 1, 1943, and June 30, 1944, approximates or exceeds the wheel tractor production of every year during the 13-year period 1927-39, inclusive, excepting only 1937. Production of crawler-type tractors for nonmilitary uses is inadequate because of military demands for this type of equipment but the supply of repair parts for these tractors is steadily improving.

Although more than twice as much new farm machinery will be available in 1944 as last year, the output is not expected to satisfy the demand, lumping all items together. The situation calls for repair and maintenance of implements on a wide scale again in 1944. Repair parts are expected to be available in ample quantity, with the possible exception of a few of the critical component type which may be somewhat light. This is why maintenance was emphasized continually in this winter's educational work.

Transportation Items Tight

Transportation.—One of the tightest spots in farm equipment will be in transportation vehicles, including trucks and replacement tires for trucks now in operation. Allied military operations require the lion's share of newly made hauling vehicles of all kinds. When fighters land on foreign shores, or invade enemy territory, they must take their transportation with them. Consequently, on the home front, it is imperative that everyone maintain trucks, tires and other hauling equipment now in use. It will be necessary to keep every farm truck operating and used to the fullest extent. Motors must be kept in condition and tires must be recapped. The synthetic rubber production program has been successful but the tire shortage is still with civilians. Here again military needs come first.

In addition to maintenance, farmers may have to pool their rolling stock. Their success in pooling farm machin-

ery and trucks in 1943 suggests a partial solution of farm-to-market hauling in 1944.

Manufacture of new trucks for farm use in 1944 does not promise to alleviate the transportation problem materially. Although truck production for civilian use in 1944 is scheduled at four times that of 1943, it is still only a small part of a normal year's production. Furthermore, the relatively low production planned this year must be divided among farmers and several other civilian claimant groups.

The seriousness of the tire situation, the extent of our current starvation diet on tires, may be seen in figures from the Office of the Rubber Director. At the end of 1943 there had been distributed during that year a total of about 17,200,000 tires of passenger car size. But—because this figure included synthetic tires, war tires made of reclaimed rubber, used tires recovered by salvage collection, and other emergency tires—the total was the equivalent of only about 12,000,000 new tires. This compares with approximately 50,000,000 tires a year prior to the war.

Pressure Canners Not Rationed

Pressure canners.—The increased emphasis on victory gardens and together with wider use of home-grown foods have greatly increased demands for pressure canners and other types of home food preservation equipment. From 1929 to 1942, approximately a million pressure canners were manufactured. In 1943 the production was a little more than 300,000 pressure canners. The manufacture of 400,000 during 1944 has been authorized. The inventory on hand at the end of 1943, plus the proposed 1944 output, has made the supply and demand situation so favorable that pressure canners for food preservation were removed from rationing.

Electric motors.—The scheduled monthly production for all manufacturers of fractional horsepower electric motors adapted to farm use is 150,000

units, of which about 30,000 per month are being supplied to manufacturers of farm machinery for use as component parts of farm equipment. In addition, 18,000 units per month are scheduled for distribution as replacement motors to be sold to farmers who meet the requirements of Priorities Regulation 19. Due to large requirements of the Army, Navy, and Maritime Commission for fractional horsepower motors, manufacturers are behind production schedules. Some increase in the supply is expected in the second quarter of 1944, but motors will be difficult to obtain as long as the war continues. Motors of from 1 to 10 horsepower can be purchased by farmers having priority ratings of AA-5 or higher. Used motors of from 1 to 10 horsepower are available and can be purchased without priority ratings.

Engine Priorities Simplified

Small farm engines.—To expedite the issuance of priority ratings to farmers for engines of 20 horsepower and less, a procedure has been established whereby AA-2 ratings may be extended to farmers following the approval of applications filed with County Agricultural Conservation Committee offices. This simplified procedure is based upon an expected supply of approximately 37,000 internal combustion engines, both air-cooled and liquid-cooled types, for farm use. The priority rating is issued if the use is essential to the on-farm production of crops, livestock, livestock products, poultry, eggs, honey, or is specified among a liberal list of other essential uses. The available supply of engines does not permit the granting of priority ratings for such uses as the operation of lawn mowers or household machines or to supply the needs of summer homes.

Large farm engines.—Because of the greater demand for engines of more than 20 horsepower, farmers needing larger size engines should file applications with the nearest field offices of the War Production Board. The

recommendations of County Agricultural Conservation Committees is desired on farm applications and will expedite consideration by WPB field offices.

Hand tools.—Farm and garden hand tools are expected to be available in sufficient quantities during 1944 to supply essential needs of farmers as well as victory gardeners. The present production of these tools is ex-

pected to be greater than for any previous year. Although the production of mechanics' hand tools is greater than during any previous period, the demands of the armed forces consume most of it. During 1944 some increase in the supply available to farmers is expected.

DAVID MEEKER

Office of Materials and Facilities

Farm Labor Supply For 1944

WITH this year's food needs greater than in any previous year, it is essential that American farmers produce more than in the last two bumper years. One of the most important factors for increased output is an adequate labor supply. Assuming favorable weather in order to carry on planting and harvesting operations, it is now estimated that nearly 72 million more man-days of labor will be required in 1944 than in 1943, if this year's production goals are to be achieved. This additional work-load will require the equivalent of 287,600 additional men, each working 250 10-hour days per year.

The bulk of the nation's farm production must come from the million or so of the most highly productive farms. The operators of these farms cannot be expected to further increase their working hours or increase those of their hired help and families in 1944. Last summer these operators about reached the maximum of human endurance in number of hours worked on their farms. In some States operators worked an average of 13 hours a day while their hired hands worked from 10 to 12 hours a day.

On the other hand, production on many low-income farms, having underemployed family labor, can undoubtedly be increased to some extent by helping such families obtain more adequate facilities and land, and by helping them plan their work so as to

utilize their labor and equipment more efficiently.

To help farmers meet their 1944 farm labor needs present plans call for (1) continued deferments of draft-age farm workers engaged in essential production, (2) a more complete mobilization of all potential local State farm labor resources, (3) wider use of war prisoners, and (4) where these sources are not sufficient, for a mobile task force of foreign and interstate farm workers who can be used in adequate numbers at the right time.

The Tydings amendment to the Selective Service Act provides for the deferment of workers necessary to and regularly engaged in agricultural occupations or similar endeavors essential to the war effort as long as such workers remain so engaged or until they can be satisfactorily replaced. Nearly all the States have raised the level of requirements for such deferments, and local draft boards, with the advice of county agents and agricultural war board members, are constantly reviewing these deferments. If the production goals for 1944 and subsequent years are to be achieved, it is essential to continue the deferment of workers employed full time on productive farms.

There is some hope of increasing the farm labor force with skilled workers during the coming year. It is quite likely that the production of some war goods will be reduced materially during

the coming year. Already some munition plants are being shut down. In such cases, efforts will be directed toward encouraging the systematic return of experienced farm workers to agriculture as they are laid off or become underemployed.

In general the War Food Administration's recruitment and placement program for 1944 will follow the 1943 pattern but on a more systematic and intensive scale. Major emphasis will be placed on full mobilization for seasonal farm work, such as in planting and harvesting operations. Local leaders will be urged to continue to work with county agents in arranging for the pooling of labor and machinery. Businessmen, nonfarm women, and youths will again be recruited and employed part-time and full-time on labor deficit farms.

Over 35,000 workers will be transported from areas of temporary surplus to areas of critical need *within* each of the various States. It is planned also to expand somewhat the 1943 program dealing with *interstate* and *foreign* workers. These plans call for the maintenance of a mobile task force of 126,000 able-bodied, experienced, interstate and foreign workers. Such workers will be shifted from area to area of critical need, as required, to assist local labor forces in the planting, cultivating, and harvesting of essential food and fiber crops. Being emergency farm workers, they will not remain permanently in any one community.

No Labor Source Overlooked

No source of labor for agriculture will be overlooked. Plans are now mapped out for farmers to again use, where feasible, Japanese evacuees, war prisoners, conscientious objectors, inmates of penal and corrective institutions, and furloughed members of the armed forces in cases of extreme emergency.

Food industry labor problems are of concern to agriculture because many farm products must be processed before

being made available for ultimate consumption. Increased farm production would be futile if foodstuffs were allowed to go unprocessed because of inadequate manpower in the food industries. The 1944 labor requirements of the food industries are expected to be the highest on record. But unfortunately the labor supply available to these industries has not increased proportionately to the greatly increased demands for processed foods. On the contrary, employment has actually declined in some important food plants. Thus it may be necessary for agriculture to share some of its labor supply with certain of the food industries during slack periods in agriculture.

At the other side of the food picture are industries equally important to agriculture which have critical labor shortages. These industries produce mixed feeds, fertilizers, seeds, food containers, agricultural machinery, and trucks, as well as the many agricultural produce warehouses. The importance of these industries to operate at full capacity is quite apparent if 1944 production goals are to be achieved. And so agriculture may be called upon to share its labor with these industries during slack periods in agriculture.

Farm Labor Needs Misunderstood

The true nature of farm labor needs and supply is sometimes misunderstood by people unfamiliar with agricultural problems. They tend to overlook variations in labor productivity from region to region and from farm to farm. These people are prone to assume a high degree of mobility of agricultural workers which does not exist, and some even feel that the achievement of last year's production goals indicates that agriculture has no labor problems. Regardless of what the potential farm labor supply may be in areas and on farms of low productivity, it can be stated unequivocally that the margin of labor supply on most of the nation's *commercial* farms is very narrow. It is so narrow that unfavorable weather conditions, or other emergen-

cies, may at any time create seasonal needs which can not be met locally. And furthermore, it is frequently impossible to find adequate numbers of either experienced or inexperienced year-around workers for such farm work.

The year 1944 is believed to be the critical year of the war. It is the year in which the United Nations expect to bring their full military and economic weight against the enemy. To do so it

is essential that they have all the agricultural commodities that can be produced. Therefore the chance of meeting the 1944 agricultural goals depends, in large measure, upon the vigorous prosecution of a realistic farm labor program which demands the service of able bodied men to perform difficult tasks.

COL. PHILIP G. BRUTON

Director, Office of Labor

22 Million Victory Gardens

THE 1944 victory garden program calls for 10 percent more gardens. This will mean 22 million gardens. And from these gardens the program calls for the production of 25 percent more food.

Last year, estimates reveal, there were 20 million victory gardens which produced 8 million tons of food. Thus the 1944 garden goal calls for 10 million tons of food produced from the 22 million gardens.

Victory gardens are one of the most popular of the Government's wartime programs. For one thing it is easy to see the relationship between a garden and total food production. Gardeners rightly feel they are making an important contribution to the war effort. But there are other reasons why gardening was so popular last year.

Rationing Stimulated Gardening

The beginning of rationing of canned and frozen fruits and vegetables last March came at just the right time to stimulate interest in producing those foods at home. The opportunity to supplement the family's ration points appealed to the enlightened self-interest of many. Increased prices of fresh fruits and vegetables in the market also played a part. And, further, the opportunity for recreation in the home garden appealed to many people who were restricted in their customary week-end trips, golf four-somes and similar forms of diversion.

Last year's contribution of victory gardens to the nation's supply of fresh vegetables was really remarkable. Unofficial estimates by Government economists place the total commercial production of vegetables for fresh market at 10.8 million tons in 1943 and the production from victory gardens at about 7.9 million tons. It appears, then, that victory gardens on farms and in cities and towns produced about 40 percent of all the vegetables grown for fresh consumption in 1943.

Small-Area Crops Urged

The 1943 garden program emphasized the importance of selecting crops that would give the greatest return in nutrients as well as in volume of produce for the space used. Persons with gardens in cities or towns were urged to plant tomatoes, carrots, beans, and green, leafy vegetables. Crops like corn and potatoes were not recommended for the very small gardens because they do not yield enough to justify the space required. Peas, a favorite of many old-time gardens, were not recommended for the country as a whole because a relatively cool growing season is necessary.

In making recommendations of this kind the Department of Agriculture realized that experienced gardeners went ahead and planted those crops that did best in their own localities. This type of advice was intended primarily for beginners—and there is

ample evidence that it was well received.

In general, the same choice of crops is recommended for the 1944 program. Because of increased interest in edible soybeans together with increased seed supplies of these varieties, however, more attention will be given to soybean production in victory gardens this year.

One important change in the 1944 program will be more emphasis on neighborhood and community gardens. Last year many city people began their gardening careers with a tiny plot in the backyard. A large proportion of them are now convinced they can do a better job in a community plot where more space is available and the land is better suited to gardening. But the backyard plots will not be wasted in some instances for they will be used as the "kitchen garden" for growing lettuce, radishes, green onions and similar vegetables while the community plot will be used for the larger, slower growing crops.

More Intensive Gardens This Year

This year there will be greater emphasis on more intensive use of garden space by succession planting and planting later into the fall. Radishes and similar rather quick-maturing crops can be followed by other vegetables in the late spring or early summer. Likewise spinach, lettuce, and such hardy crops which do best in cool weather can follow other vegetables in the early fall and thus the garden space can be more fully utilized. These are two chief ways of making more intensive use of garden space from early spring to late fall. Such methods add up to planning—to make the victory garden produce the most. Last year's initial experience by many suggests the wisdom of adequate advance planning to avoid the mistakes of the first season's efforts. A few nights spent with a paper and pencil in charting the best use of the garden space will frequently prove quite profitable and should

minimize inefficient additions of "just one more vegetable" as afterthoughts.

Equipment and supplies needed by victory gardeners in 1944 will be more available than a year ago. Contrary to some rumors there does not appear to be any danger of a seed shortage. The special victory garden fertilizer will contain more plant food this year and will be available in larger volume. More garden tools will be available while the supply of insecticides promises to be at least as good as last year. Gardeners are encouraged to get along with a few simple tools: spade or fork, hoe, rake, duster or sprayer or both. Manufacturers are authorized to make a much larger number of small dusters and sprayers this year. Very few wheel cultivators will be available but, they are not essential in most small gardens.

Gardens Tailored to Needs

Extension workers, victory garden committees, local garden leaders and others who are helping in the program will all emphasize the importance of tailoring the garden to fit the family's needs and facilities for taking care of it. While farm gardens can usually supply nearly all the family's vegetable needs, city and town gardens will do well to supply a share of the family's needs. We need all the food we can grow, but it is a costly waste to plant more than can be taken care of properly. As a rough guide, a garden 50 by 30 feet requires about an hour a day during spring and early summer. From then on throughout the season much less time is required.

More local garden leaders are needed this year to help beginners avoid costly mistakes. Newspaper and magazine articles, radio programs, and special publications are all essential—and they will all be readily available as the season develops—but they are poor substitutes for personal guidance in solving specific problems of beginners, often the difference between success and failure. Garden committees are now enlisting the aid of ex-

perienced gardeners to serve as local leaders for this purpose.

Because most gardeners in 1944 will have had at least 1 year's experience and because of the emphasis on more efficient gardens, it is reasonable to expect greater output per garden. The

1944 victory garden goal of 25 percent more produce from only 10 percent more garden acreage is largely based on the assumption of better gardens.

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Electric Pig Brooders Increase Yields

WE DO NOT know for sure who did the things, in the way of discovery and invention, that mean the most to us. We guess about it. Roger Bacon is thought, but not known, to have stumbled upon spectacles—without which many, if not most, other inventions would have been impossible. The lantern globe, from which practically all lighting devices to this day have been evolved, is believed to have been contrived by King Alfred as a means of shielding his precious time-telling candles from draughts. We like to think he did it.

We should like—those of us who have become impressed by its tremendous importance in the science and art of meat-making—to be able to think of a man by name when we think of the origin of the electric pig brooder. But we never can. He is believed to have been a Minnesota farmer. But that is as much as we can even guess.

It is not much of anything to have done, anyhow, though quite something to be proud of. If this farmer ever thought about it after it became famous, he probably thought as Strickland Gillilan once said of writing *Off Ag'in Finnigan*, "Anybody above the grade of idiot could have done it, but I did."

Electric Brooder Quite Simple

The electric pig brooder is an almost silly simple thing. The wonder is that everybody had not thought of it before—or, at least, ever since there were electric lights. A few pieces of scrap lumber, an electric light bulb and

some sort of reflector put together in a corner of the hog house or farrowing pen—that is all there is to the electric pig brooder.

The Rural Electrification Administration, which has preached pig brooders throughout the land, has published a little folder—available to anybody who cares to ask for it—with directions by means of which anybody can knock a brooder together in a few minutes. It just provides a heated area in a corner of the pen where the little pigs may lie in comfort and out of danger of trampling and overlaying by their mother. That is all. But it is astounding how much that can mean in increased pork production—in saving of feed, both by saving the pigs that otherwise would die and by reason of the smaller number of brood sows necessary to be kept to raise a given number of pigs.

10 Percent More Pigs Saved

Until quite recently, it has not been possible to measure these benefits in any very definite way. True, both the Rural Electrification Administration and the Bureau of Animal Industry did some testing some time ago and announced results—in different terms. REA said that, on the average, use of the brooder in fall and spring farrowing would result in saving one pig per litter. BAI figured another way, but came to substantially the same conclusion. The two appeared to agree that, by use of the brooder, the saved pig crop could be increased somewhere in the neighborhood of 10 percent.

Individual farmers from all parts of the country told tales which made these figures look skimpy. But, of course, the farmers' figures were not scientifically arrived at while those of the Department's agencies were.

Now, other scientifically arrived at figures are available, from more extensive tests, and they tend to confirm the statements of the unscientific farmer rather than those of the scientific bureaus. The Purdue Agricultural Experiment Station, in Indiana, says that use of the brooder results in saving, on the average, 1.5 pigs per litter—half a pig better than REA ever claimed. In percentage, it figures out at 17.4—a much higher figure than previously thought safe.

Higher Yields in Recent Test

Of course, Purdue's figures do not necessarily discredit any others. They may or may not be applicable to the country as a whole. They were made under Indiana conditions. In Indiana, according to Purdue's statement, one out of three pigs farrowed is normally lost before weaning. Losses are probably not normally so great in states farther south—they may be greater in those farther north. It might be assumed that Indiana strikes a fair average for the greater part of the country. But, whether this is true or not, the Purdue experiments tell a better story for the electric pig brooder than has ever been told by its most enthusiastic advocates, such as REA.

The Purdue results were obtained in comparative tests with 105 sows which farrowed an average of 8.5 pigs per litter. In both lots, 58 percent of the death loss occurred in the first 24 hours after farrowing and 93 percent in the first three days. Use of the brooders reduced death losses from chilling more than death losses from other causes. The death of pigs from chilling was 10 percent in the lot without brooders and 2.2 percent in the lot with brooders.

Death losses in the houses without brooders were progressively greater

as the outdoor temperature at farrowing time decreased. Change in outdoor temperature had no discoverable effect on death losses in the houses where brooders were used.

The question is raised as to whether or not the use of brooders had any effect on the rate of gain of the pigs. Those in the brooded lot gained slightly more during the brooding period and slightly less from then to weaning time. This latter result, however, is probably accounted for by the fact that the sows in the brooded lot suckled 40 percent more pigs than those in the other lot.

Summing up the results of the tests, a member of the Purdue Experiment Station staff wrote, "Such a reduction in loss will provide considerable relief to the hog producer laboring under the present shortage of farm help * * * the breeding herd can be reduced without reduction in the number of market hogs produced. The saving in labor, feed and equipment is apparent."

Would it not be a gratifying task to convey that message to the old Arrowhead farmer in Minnesota who first got and applied the pig brooder idea? But it cannot be done. Nobody knows who he is or was.

Chick Brooder Reduces Loss

A very similar story could be told of saving labor, feed and equipment by use of the electric chick brooder—which, also, REA has preached "from Land's End to John O'Groat's." But there is not space for it here.

The chick brooder is not quite so easily made as the pig brooder, but still well within the capabilities of the average farmer with saw and hammer. It, too, requires hardly more than bits of lumber and some light bulbs. REA has a chick brooder folder, similar to the one on a pig brooder, with complete directions for building and operation.

DIXON MERRITT

Rural Electrification Administration

Economic Trends Affecting Agriculture

Year and month	Industrial production (1935— 39= 100) ¹	Income of indus- trial workers (1935— 39= 100) ²	Cost of living (1935— 39= 100) ³	Whole- sale prices of all com- modi- ties ⁴	1910—14=100			Prices paid, interest and taxes	Farm wage rates
					Prices paid by farmers for commodities used in—				
					Living	Pro- duction	Living and pro- duction		
1933	69	61	92	96	108	108	108	120	85
1934	75	76	96	109	122	123	122	129	95
1935	87	86	98	117	124	127	125	130	103
1936	103	100	99	118	123	125	124	128	111
1937	113	117	103	126	128	136	131	134	126
1938	89	91	101	115	122	125	123	127	125
1939	109	105	99	113	120	122	121	125	123
1940	125	119	100	115	121	124	122	126	126
1941	162	169	105	127	131	131	131	133	154
1942	199	238	116	144	154	149	152	151	201
1943					170	163	167	164	264
1943—January	227	281	121	149	163	155	160	157	224
February	232	287	121	150	165	157	162	159	
March	235	295	123	151	167	158	163	160	
April	237	300	124	151	168	161	165	162	239
May	238	302	125	152	170	162	167	163	
June	236	304	125	152	171	163	168	164	
July	240	306	124	151	172	164	169	165	274
August	242	312	123	151	172	164	169	165	
September	244	316	124	151	171	167	169	165	
October	247	319	124	150	172	167	170	166	280
November			124	150	173	168	171	167	
December					175	170	173	169	
1944—January					176	172	174	169	275

Year and month	Index of prices received by farmers (August 1909-July 1914=100)							Ratio, prices received to prices paid, interest and taxes	
	Grains	Cotton and cotton-seed	Fruits	Truck crops	Meat animals	Dairy products	Chick-ens and eggs		All groups
1933.....	62	64	74	105	60	82	75	70	58
1934.....	93	99	100	103	68	95	89	90	70
1935.....	103	101	91	125	117	108	117	108	83
1936.....	108	100	100	111	119	119	115	114	89
1937.....	126	95	122	123	132	124	111	121	90
1938.....	74	70	73	101	114	109	108	95	75
1939.....	72	73	77	105	110	104	94	92	74
1940.....	85	81	79	114	108	113	96	98	78
1941.....	96	113	92	144	144	131	122	122	92
1942.....	119	155	125	199	189	152	151	157	104
1943.....	152	167	198	289	207	182	189	188	115
1943-January.....	134	164	139	277	205	177	185	182	116
February.....	138	163	156	301	214	179	170	178	112
March.....	143	166	172	302	218	180	171	182	114
April.....	146	167	189	291	218	180	173	185	114
May.....	148	167	212	253	214	179	175	187	115
June.....	151	166	234	308	211	178	179	190	116
July.....	154	163	230	315	206	178	183	188	114
August.....	155	167	204	308	206	181	193	193	117
September.....	158	171	204	311	207	185	201	193	117
October.....	162	171	197	264	203	187	212	192	116
November.....	163	165	207	295	192	190	217	192	115
December.....	170	168	231	245	192	191	210	197	117
1944-January 6.....									

¹ Federal Reserve Board, adjusted for seasonal variation. Revised November 1943.

² Total income, adjusted for seasonal variation. Revised March 1943.

³ Bureau of Labor Statistics.

⁴ Bureau of Labor Statistics index with 1926=100, divided by its 1910-14 average of 68.5.

⁵ Revised.

⁶ Revised series to begin in next issue.

NOTE.—The index numbers of industrial production and of industrial workers' income shown above are not comparable in several respects. The production index includes only mining and manufacturing; the income index also includes transportation. The production index is intended to measure volume, whereas the income index is affected by wage rates as well as by time worked. There is usually a time lag between changes in volume of production and workers' income, since output can be increased or decreased to some extent without much change in the number of workers.